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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,843	02/20/2004	Brett W. Busch	MI22-2388	7517
21567	7590	11/15/2005	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			GARCIA, JOANNIE A	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,843

Applicant(s)

BUSCH ET AL.

Examiner

Joannie A. García

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-69 is/are pending in the application.
- 4a) Of the above claim(s) 22-28 and 43-69 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-8 and 10-13 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 9, 14-21 and 29-42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06-08-2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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Applicant's election without traverse of claims 1, 10, and 29, Species I, in the reply filed on 08-30-05 is acknowledged.

Claims 10-21, and 29-42, are objected to because of the following informalities:

In claim 10, line 11, "a" before "depth in the masking layer" should be replaced with --another--.

The term "approximately" in claim 21 is a relative term, which renders the claim indefinite. The term "approximately" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. If applicant intends a particular angle, it should be clearly recited.

Claim 29 recites the limitation "first masking layer" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-8, and 10-13, are rejected under 35 U.S.C. 102(b) as being anticipated by Shih et al (U.S. Patent 6,037,213).

Shih et al discloses a method of forming a rectangular or square shape opening 1/2 through a masking layer 24/26/28 comprising utilization of at least two sequential

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photomasking steps (Figures 1-4), which in combination form the opening through the masking layer but which are not sufficient alone to form the opening through the masking layer (Figures 1-5), the photomasking steps each comprising utilization of an etch to pattern the masking layer while a patterned photoresist mask is over the masking layer and each utilizing a separate photoresist mask 30 and 32, respectively, from one another (Figures 1-5), wherein the masking layer comprises silicon and nitrogen (Column 5, lines 15-45), wherein the masking layer consists essentially of silicon, oxygen, and nitrogen (Column 5, lines 31-45), wherein the masking layer is over an electrically insulative material 12/22 (Figure 1), and wherein the opening is for forming a capacitor container within the electrically insulative material (Figures 7-8).

Shih et al disclose a method of forming an opening 1/2 comprising the following steps in the following order: providing a substrate 10/12/22 having a masking layer 24/26/28, the masking layer having an initial thickness (Figure 1), forming a first patterned photoresist 30 over the masking layer (Figure 1), using the first patterned photoresist during a first etch into the masking layer, the first etch extending to a depth in the masking layer that is less than the initial thickness of the masking layer (Figure 2), forming a second patterned photoresist 32 over the masking layer (Figure 3), using the second patterned photoresist during a second etch into the masking layer, the second etch extending to another depth in the masking layer that is less than the initial thickness of the masking layer (Figure 4), the combined depths to which the first and second etches extend into the masking layer being greater than the initial thickness of masking layer (Figures 1-4), the first and second etches forming the masking layer into a patterned mask having a third pattern different from the patterns of the first and second patterned

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photoresists (Figures 1-4), and using the patterned mask to pattern a region 22 of the substrate beneath the patterned mask (Figure 5), wherein the masking layer comprises silicon and nitrogen (Column 5, lines 15-45), wherein the masking layer comprises silicon, oxygen, and nitrogen (Column 5, lines 15-45), wherein the masking layer consists essentially of silicon, oxygen, and nitrogen (Column 5, lines 31-45), wherein the masking layer is over an electrically insulative material 12/22 (Figure 1), and wherein the opening is for forming a capacitor container within the electrically insulative material (Figures 7-8).

Claims 4, 5, and 9, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 14-21, and 30-42, would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 29 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joannie García whose telephone number is (571) 272-1861. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith, can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JAG

November 11, 2005

GFourson
Primary Examiner



George Fourson
Primary Examiner
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